

# Motivating Employee Ideas Through Contests: Field Experimental Evidence

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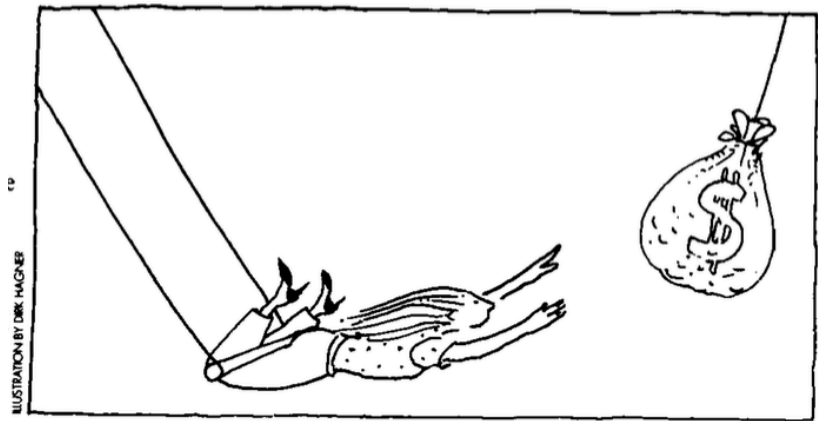
13th Open And User Innovation Society Meeting, July 2015

with E. Isselbacher, O. Jung, K. Lakhani, M. Menietti

*“... AT&T has begun to open up its innovation process beyond its labs and to encourage employee participation. [...] Employees vote for ideas and [...] Leaders then decide whether or not to grant seed funding to create prototypes. [...] AT&T has allocated \$44 million to fund ideas ranging from customer-service enhancements to new technologies.”*  
*Source: WSJ, 2014*

Other examples in the news: Apple, Siemens, IBM, Thomson Reuters, SONY, NASA, etc.

... what motivate employees to participate?



# Previous literature

## Prizes

- ▶ compensate workers for effort (Gibbs et al., 2014; Lazear & Rosen, 1981)
- ▶ help workers mitigate a free riding problem (Lange et al., 2007; Morgan, 2000; Morgan & Sefton, 2000);

## "Intrinsic" incentives

- ▶ altruism
- ▶ status (Moldovanu et al., 2007)
- ▶ peer recognition, job satisfaction, etc. (Blanes i Vidal & Nossol, 2011; Deci & Ryan, 1985; Kosfeld & Neckermann, 2011)

# Methodology

**The context:** an eight-week internal contest for ideas within a medical institution in the US (over 1200 employees)

**Treatment:** solicitation emails encouraging employees to make submissions by the opportunity of winning a monetary reward, with a control group in which the monetary reward was not mentioned

**Outcomes:** (a) the decision to participate with a submission  
(b) the quality of the submissions

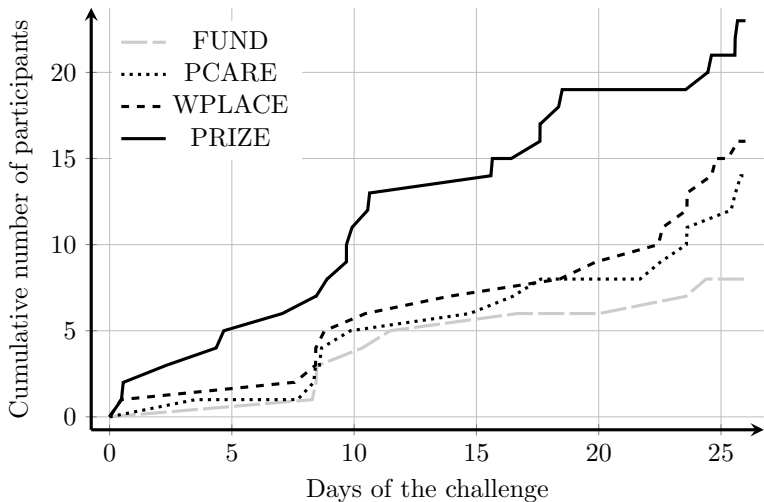
# Results

- ▶ Positive effect on participation associated with monetary rewards (on average a 3 percentage point increase in participation).
- ▶ Women reacted more strongly than men, controlling for differences in the professional status of the worker
- ▶ We don't detect any effect on the distribution of the quality of submissions

***Submit your ideas to [(1)win an Apple iPad mini| (2.1)improve patient care at the Heart Center| (2.2)Improve the workplace at the Heart Center| (2.3)win project funding up to \$20,000 to turn your ideas into actions]***

*[...] All [employees] are eligible to submit ideas online. We encourage you to submit as many ideas as you have: no ideas are too big or too small!*

*Submissions will be reviewed and judged in two rounds, first [...] via crowd-voting, and then by an expert panel. Winning ideas will be eligible for project implementation funding [...]*



Employee participation over time



## Sample Average Treatment Effect of Prizes on Participation

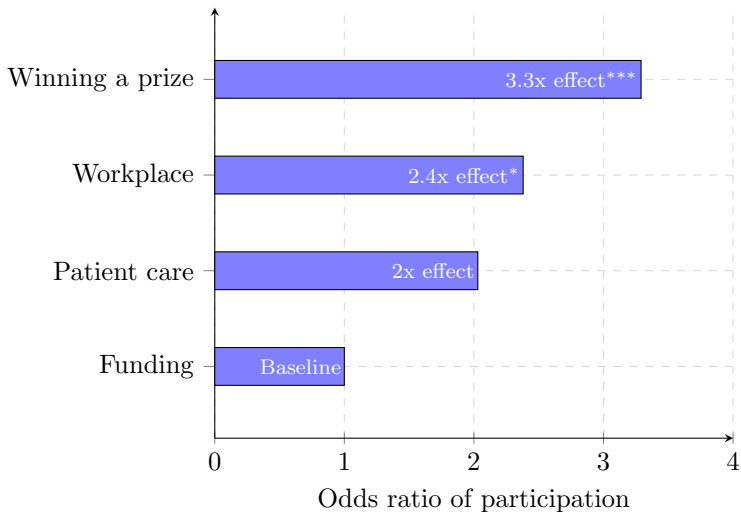
	N	Estimate	Std. Error	t value	Pr(> t )
Full sample	1,237	0.034	0.014	2.401	0.016
Women	890	0.037	0.017	2.209	0.027
Men	347	0.024	0.026	0.934	0.351
Physicians	226	0.038	0.032	1.179	0.240
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Logistic Regression for odds of participation (ctrl: gender, job, job X gender, office)

## Logistic Coefficients for Participation, Differences Between The Genders

	(1)	(2)	(3)	(4)	(5)
Patient care	-1.04 (1.17)	1.18** (0.58)	1.20** (0.58)	1.17** (0.58)	1.18** (0.58)
Workplace	1.13 (0.74)	0.83 (0.60)	0.84 (0.60)	0.82 (0.60)	0.83 (0.60)
Winning iPad	0.76 (0.76)	1.42** (0.56)	1.48*** (0.56)	1.42** (0.56)	1.43** (0.56)
male			0.50 (0.77)	0.59 (0.81)	0.67 (1.09)
Patient care X male			-2.30* (1.30)	-2.22* (1.30)	-2.21* (1.31)
Workplace X male			0.18 (0.94)	0.18 (0.95)	0.30 (0.95)
Winning iPad X male			-0.75 (0.93)	-0.71 (0.94)	-0.66 (0.94)
Constant	-4.03*** (0.99)	-5.10*** (0.93)	-3.95*** (0.50)	-4.92*** (0.72)	-5.04*** (0.92)
Profession	Yes	Yes	No	Yes	Yes
Office	Yes	Yes	No	Yes	Yes
Gender X Profession	No	No	No	No	Yes
Observations	347	890	1,237	1,237	1,237
Log Likelihood	-56.24	-167.73	-231.90	-226.29	-224.08

Note:

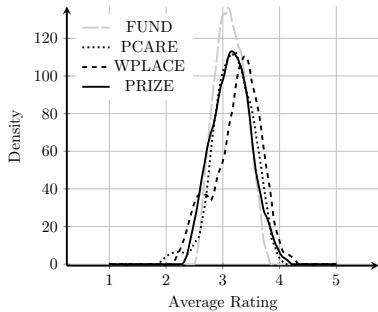
\*  $p < 0.1$ ; \*\*  $p < 0.05$ ; \*\*\*  $p < 0.01$

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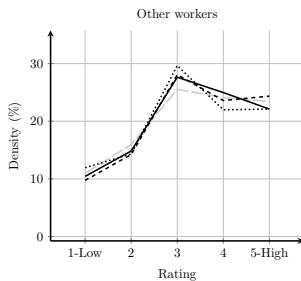
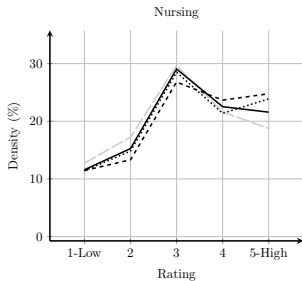
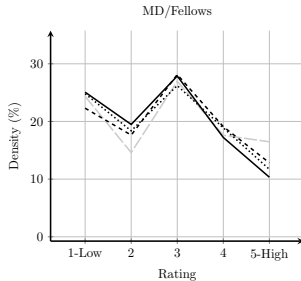
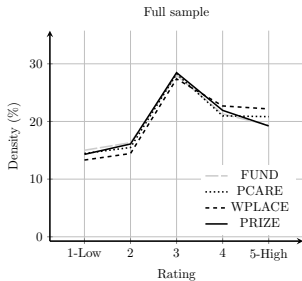
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## Quality of ideas

- ▶ 178 (verified) employees
- ▶ 12,000 ratings (1 to 5)
- ▶ Each idea evaluated by ~100 different persons
- ▶ KS test rejects any difference

Quality of Ideas as from  
employees votes



## Distribution of Ratings



# Conclusions

- ▶ Evidence is consistent with theory: prizes raise participation (helps private provision of public goods)
- ▶ Evidence of different preferences between the genders (as in Croson & Gneezy, 2009) may have strong practical implications
- ▶ Quality unchanged by monetary incentives (what is the underlying cost function for quality?)

# Thanks!

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